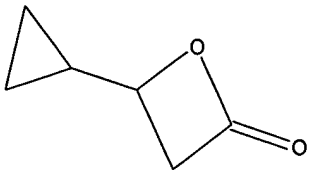
L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 16:21:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 33953 TO ITERATE

5.9% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 668048 TO 690072
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

L3 0 L2

=> s l1 full
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 16:21:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 682248 TO ITERATE

100.0% PROCESSED 682248 ITERATIONS 7 ANSWERS
SEARCH TIME: 00.00.04

L4 7 SEA SSS FUL L1

L5 5 L4

=> d 1-5 ibib abs hitstr

L5 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:814539 CAPLUS
DOCUMENT NUMBER: 133:351006
TITLE: Poly(3-cyclopropyl-3-hydroxypropionate) and their derivatives and their preparation
INVENTOR(S): Hubbs, John Clark; Barnette, Theresa Sims; Boaz, Neil Warren
PATENT ASSIGNEE(S): Eastman Chemical Company, USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000068290	A2	20001116	WO 2000-US11848	20000502
WO 2000068290	A3	20020926		
W: BR, CA, CN, IN, JP, KR, MX, SG				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6610878	B1	20030826	US 2000-546817	20000411
EP 1261657	A2	20021204	EP 2000-930290	20000502
EP 1261657	B1	20041110		
R: DE, FR, GB				
JP 2003518519	T2	20030610	JP 2000-616259	20000502
US 2003208092	A1	20031106	US 2003-414885	20030416
US 6710206	B2	20040323		
US 2003212294	A1	20031113	US 2003-417283	20030416
US 2004210030	A1	20041021	US 2003-743114	20031222

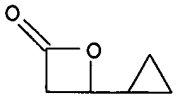
PRIORITY APPLN. INFO.:

US 1999-133686P	P	19990510
US 2000-546817	A	20000411
WO 2000-US11848	W	20000502
US 2003-414885	A1	20030416

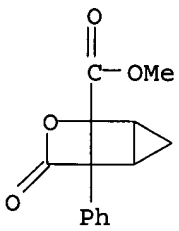
AB Poly(3-cyclopropyl-3-hydroxypropionate)(I), useful for the preparation of vinylcyclopropane and cyclopropylacetylene is prepared by reaction of cyclopropanecarboxaldehyde with ketene in the presence of catalyst selected from Lewis acids and tertiary amines. Methods for the preparation of a variety of intermediates obtained from I such as 3-cyclopropyl-3-hydroxypropionic acid and its esters and its salts 3-cyclopropylacrylic acid, and vinylcyclopropane also are disclosed. Thus, 53.6 parts cyclopropanecarboxaldehyde was reacted with 36.5 parts ketene in the presence of 0.47 parts Zinc acetate dihydrate to form I with number average mol. weight 1270 and weight average mol. weight 3490.

IT **306773-96-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(poly(3-cyclopropyl-3-hydroxypropionate) and their derivs. and their preparation)

RN 306773-96-6 CAPLUS
CN 2-Oxetanone, 4-cyclopropyl- (9CI) (CA INDEX NAME)

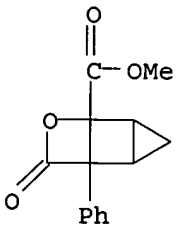


L5 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:591305 CAPLUS
DOCUMENT NUMBER: 113:191305
TITLE: Cycloadditions of 1,3,4-oxadiazin-6-ones (4,5-diaza-α-pyrones). 9. Methyl 6-oxo-5-phenyl-1,3,4-oxadiazin-2-carboxylate-synthesis and reactions with norbornene, norbornadiene, cyclopropenes, cyclobutene, and benzvalene
AUTHOR(S): Christl, Manfred; Lanzendoerfer, Ulrike; Groetsch, Maria M.; Ditterich, Elke; Hegmann, Joachim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Wuerzburg, Wuerzburg, D-8700, Germany
SOURCE: Chemische Berichte (1990), 123(10), 2031-7
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 113:191305
GI For diagram(s), see printed CA Issue.
AB The title compound (I) was prepared by cyclization of MeO2CCONHN:CPhCO2H with DCC. The reactions of I with norbornene and norbornadiene afforded the Diels-Alder adducts II, which decomposed in solution at 20° to give mainly the γ-oxoketenes III and small amts. of the β-lactones IV. The stable γ-oxoketenes III and the bis(γ-oxoketene) V were obtained directly from solns. of I and the resp. olefin. Cyclopropene, 1-methylcyclopropene, and cyclobutene were converted by I mainly into the oxepin derivs. VI (R = R1 = H, R = H, R2 = Me; R = Me, R1 = H), and the oxocin derivative VII, resp. Benzvalene and I provided the tetracyclo[3.3.0.02,8.04,6]octanone VIII. In these reactions, small quantities of β-lactones were formed, too, which together with the β-lactones IV give evidence for the dihydropyrylium-olates IX as intermediates in the thermal denitrogenation of the Diels-Alder adducts of I, e.g., II.
IT **127379-36-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 127379-36-6 CAPLUS
CN 6-Oxatricyclo[3.2.0.02,4]heptane-5-carboxylic acid, 7-oxo-1-phenyl-, methyl ester (9CI) (CA INDEX NAME)

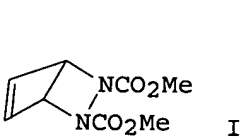


L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:454743 CAPLUS
DOCUMENT NUMBER: 109:54743
TITLE: Cycloadditions of 1,3,4-oxadiazin-6-ones (4,5-diaza-α-pyrones). Part 6. Intramolecular [2 + 2]-cycloaddition of γ-oxoketenes
AUTHOR(S): Hegmann, Joachim; Christl, Manfred; Peters, Karl; Peters, Eva Maria; Von Schnering, Hans Georg
CORPORATE SOURCE: Inst. Org. Chem., Univ. Wuerzburg, Wuerzburg, D-8700, Fed. Rep. Ger.
SOURCE: Tetrahedron Letters (1987), 28(51), 6429-32
CODEN: TELEAY; ISSN: 0040-4039

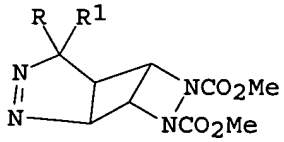
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 109:54743
GI For diagram(s), see printed CA Issue.
AB The γ-oxoketenes I, which are accessible from Me oxadiazinonecarboxylate II and cycloalkenes, give different stereoisomers of β-lactones of the 3-oxo-2-oxabicyclo[2.2.0]hexane type (III) via an intramol. [2 + 2] cycloaddn. either on heating or on photolysis.
IT **115410-99-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 115410-99-6 CAPLUS
CN 6-Oxatricyclo[3.2.0.0.02,4]heptane-5-carboxylic acid, 7-oxo-1-phenyl-, methyl ester, (1α,2β,4β,5α)- (9CI) (CA INDEX NAME)



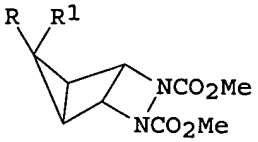
L5 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:102153 CAPLUS
DOCUMENT NUMBER: 106:102153
TITLE: Small and medium rings. Part 64. Dipolar cycloaddition reactions with heterocyclic bicyclo[2.2.0]hexenes. A contribution to the syn-anti selectivity of cis-3,4-disubstituted cyclobutenes
AUTHOR(S): Hassenrueck, Karin; Hoechstetter, Hans; Martin, Hans Dieter; Steigel, Alois; Wingen, Heinz Peter
CORPORATE SOURCE: Inst. Org. Chem. I, Univ. Duesseldorf, Duesseldorf, D-4000, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1987), 120(2), 203-12
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 106:102153
GI



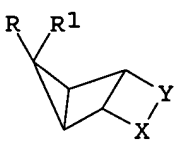
I



II



III



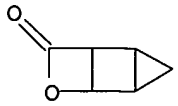
IV

AB Cycloaddn. of RR1CN2 (R = R1 = H, Me, Ph; R = Ph, R1 = Me; RR1C = fluorenylidene) to heterobicyclic compound I gave tetraazatricyclo[4.3.0.02,5]nonenes II, which eliminated N2 to give

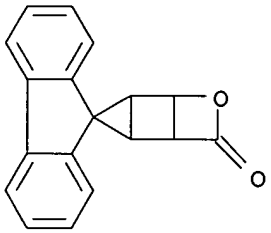
diazatricyclo[3.2.0.02,4]heptanes III. Similarly prepared were IV (X = NCO2Me, Y = CH2; X = NR, R = H, Me, Me2CH, Y = CO; X = O, Y = CO).

IT **105252-62-8P 105252-82-2P 105280-89-5P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectra of)

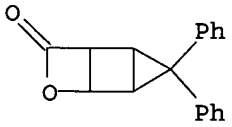
RN 105252-62-8 CAPLUS
CN 6-Oxatricyclo[3.2.0.02,4]heptan-7-one, (1α,2β,4β,5α)- (9CI) (CA INDEX NAME)



RN 105252-82-2 CAPLUS
CN Spiro[9H-fluorene-9,3'-[6]oxatricyclo[3.2.0.02,4]heptan]-7'-one, (1'α,2'β,4'β,5'α)- (9CI) (CA INDEX NAME)



RN 105280-89-5 CAPLUS
CN 6-Oxatricyclo[3.2.0.02,4]heptan-7-one, 3,3-diphenyl-, (1α,2β,4β,5α)- (9CI) (CA INDEX NAME)



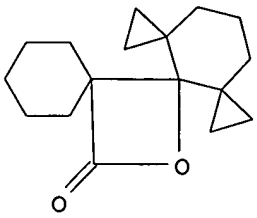
L5 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:425132 CAPLUS
DOCUMENT NUMBER: 81:25132
TITLE: General synthetic route to cycloalkylidenecycloalkanes. Reactions of α-anions of cycloalkanecarboxylic acid salts with cycloalkanones
AUTHOR(S): Krapcho, A. Paul; Jahngen, E. G. E., Jr.
CORPORATE SOURCE: Dep. Chem., Univ. Vermont, Burlington, VT, USA
SOURCE: Journal of Organic Chemistry (1974), 39(12), 1650-3
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB A versatile synthetic route leading to sym. and unsym. cycloalkylidenecycloalkanes (I) has been developed. Treatment of α-lithiated cycloalkane-carboxylic acid salts with cycloalkanones leads to the β-hydroxy acids (II). The II are then converted into the corresponding β-lactones (III). Thermolyses of III produce excellent yields of I. Sym. olefins I (m = n = 1, 2, 3, 4, 5) and unsym.

olefins I (m = 1, n = 2, 3; m = 2, n = 3) have been prepared by application of this procedure. Other substituted cyclic ketones such as adamantanone have also been successfully utilized in this reaction scheme. The α-lithiated salt of 4-cycloheptene-1-carboxylic acid undergoes a facile reaction with cyclohexanone to yield the β-hydroxy acid, which can then readily be converted into the corresponding diene without any problem of double-bond isomerizations. Attempts to utilize cyclopropanecarboxylic acid were unsuccessful.

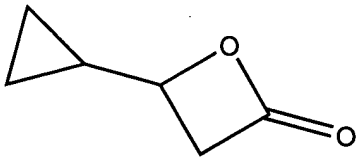
IT **51202-15-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(thermal decomposition of)

RN 51202-15-4 CAPLUS

CN 12-Oxatetraspiro[2.0.0.5.2.0.2.3]octadecan-11-one (9CI) (CA INDEX NAME)



=>



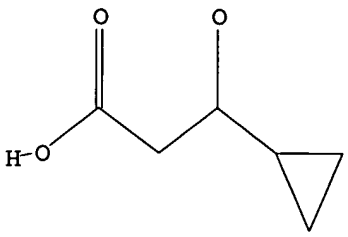
3-cyclopropyl-beta-propiolactone

http://www.cas.org/infopolicy.html

=>
Uploading C:\Program Files\Stnexp\Queries\114a.str

L6 STRUCTURE UPLOADED

=> d
L6 HAS NO ANSWERS
L6 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l6
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 16:28:57 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 73953 TO ITERATE

2.7% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1462885 TO 1495235
PROJECTED ANSWERS: 0 TO 0

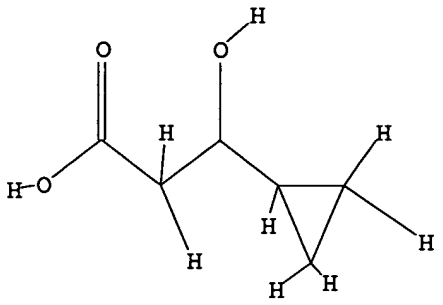
L7 0 SEA SSS SAM L6

L8 0 L7

=>
Uploading C:\Program Files\Stnexp\Queries\114b.str

L9 STRUCTURE UPLOADED

=> d
L9 HAS NO ANSWERS
L9 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l9
   REGlstRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 16:30:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 73953 TO ITERATE

2.7% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1462885 TO 1495235
PROJECTED ANSWERS: 0 TO 0

L10 0 SEA SSS SAM L9

L11 0 L10

=> s l9 full
   REGlstRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 16:30:37 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1481863 TO ITERATE

67.5% PROCESSED 1000000 ITERATIONS 3 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.06

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1481863 TO 1481863
PROJECTED ANSWERS: 3 TO 10

L12 3 SEA SSS FUL L9

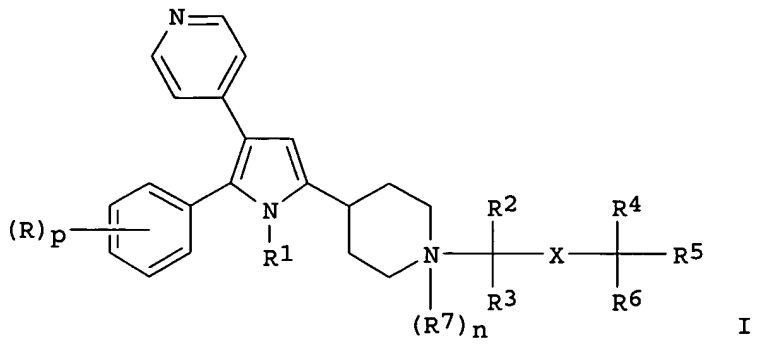
L13 3 L12

=> d 1-3 ibib abs hitstr

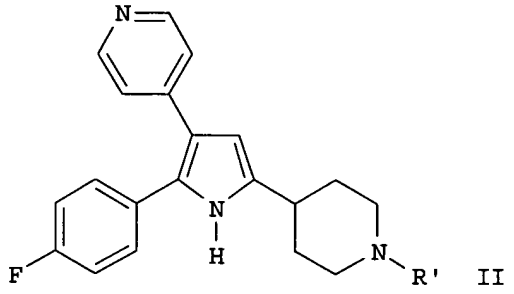
L13 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:360023 CAPLUS
DOCUMENT NUMBER: 134:366805
TITLE: Aliphatic hydroxy substituted piperidyl diaryl pyrrole derivatives as antiprotozoal agents
INVENTOR(S): Biftu, Tesfaye; Feng, Danqing D.; Liang, Gui-Bai; Ponpipom, Mitree M.; Qian, Xiaoxia; Fisher, Michael H.; Wyvratt, Matthew J.; Bugianesi, Robert L.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034632	A2	20010517	WO 2000-US30748	20001111
WO 2001034632	A3	20010927		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6528531	B1	20030304	US 2000-709961	20001110

PRIORITY APPLN. INFO.: US 1999-165144P P 19991112
OTHER SOURCE(S): MARPAT 134:366805
GI



I



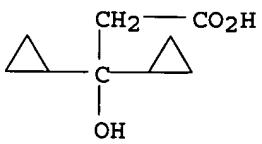
II

AB Trisubstituted pyrroles I are antiprotozoal agents (no data), useful in the treatment and prevention of protozoal diseases in human and animals, including the control of coccidiosis in poultry [wherein: n = 0-1; p = 1-3; X = bond, (un)substituted (CH2)1-3, cycloalkylene, cycloalkylidene; R = halo; R1 = H or alkyl; R2, R3 = H, (un)substituted alkyl, alkenyl, alkynyl, (un)substituted Ph or CH2Ph, CO2H or derivs.; or R2R3 = O; R4 = OH or SH or their derivs.; R5, R6 = H, alk(en/yn)yl, cycloalkyl(alkyl), (hetero)aryl(alkyl), heterocyclyl(alkyl), CO2H or OH or derivs.; or R4R5 or R5R6 forms 3- to 7-membered hetero ring; or R4R6 = O; or R2R4 or R2R5 forms 4- to 7-membered carbo or hetero ring; R7 = O, Me; and physiol. acceptable salts]. Approx. 200 compds. were prepared For instance, 4-picoline was lithiated and condensed with 4-FC6H4CONMeOMe, and the resulting ketone was deprotonated and coupled with 4-(2-iodoacetyl)-1-(benzyloxycarbonyl)piperidine to give a 1,4-diketone. Cyclization of this with ammonium acetate and deprotection gave pyrrole intermediate II [R' = H], which was N-alkylated by (R)-glycidyl Me ether to give title compound II [R' = (R)-CH2CH(OH)CH2OMe].

IT **340184-78-3**, 3,3-Dicyclopropyl-3-hydroxypropionic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor; preparation of diarylpiperidylpyrrole derivs. as antiprotozoal agents)

RN 340184-78-3 CAPLUS

CN Cyclopropanepropanoic acid, β-cyclopropyl-β-hydroxy- (9CI) (CA INDEX NAME)



L13 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:814539 CAPLUS

DOCUMENT NUMBER: 133:351006
TITLE: Poly(3-cyclopropyl-3-hydroxypropionate) and their derivatives and their preparation
INVENTOR(S): Hubbs, John Clark; Barnette, Theresa Sims; Boaz, Neil Warren
PATENT ASSIGNEE(S): Eastman Chemical Company, USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000068290	A2	20001116	WO 2000-US11848	20000502
WO 2000068290	A3	20020926		
W: BR, CA, CN, IN, JP, KR, MX, SG				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6610878	B1	20030826	US 2000-546817	20000411
EP 1261657	A2	20021204	EP 2000-930290	20000502
EP 1261657	B1	20041110		
R: DE, FR, GB				
JP 2003518519	T2	20030610	JP 2000-616259	20000502
US 2003208092	A1	20031106	US 2003-414885	20030416
US 6710206	B2	20040323		
US 2003212294	A1	20031113	US 2003-417283	20030416
US 2004210030	A1	20041021	US 2003-743114	20031222

PRIORITY APPLN. INFO.:

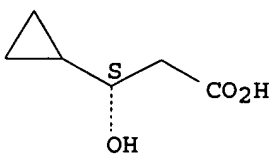
US 1999-133686P	P	19990510
US 2000-546817	A	20000411
WO 2000-US11848	W	20000502
US 2003-414885	A1	20030416

AB Poly(3-cyclopropyl-3-hydroxypropionate)(I), useful for the preparation of vinylcyclopropane and cyclopropylacetylene is prepared by reaction of cyclopropanecarboxaldehyde with ketene in the presence of catalyst selected from Lewis acids and tertiary amines. Methods for the preparation of a variety of intermediates obtained from I such as 3-cyclopropyl-3-hydroxypropionic acid and its esters and its salts 3-cyclopropylacrylic acid, and vinylcyclopropane also are disclosed. Thus, 53.6 parts cyclopropanecarboxaldehyde was reacted with 36.5 parts ketene in the presence of 0.47 parts Zinc acetate dihydrate to form I with number average mol. weight 1270 and weight average mol. weight 3490.

IT **220874-85-1P**, (S)-3-Cyclopropyl-3-hydroxypropionic acid
220874-86-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(poly(3-cyclopropyl-3-hydroxypropionate) and their derivs. and their preparation)

RN 220874-85-1 CAPLUS
CN Cyclopropanepropanoic acid, β-hydroxy-, (βS)- (9CI) (CA INDEX NAME)

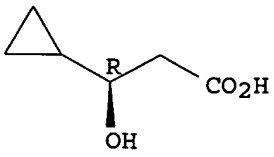
Absolute stereochemistry. Rotation (+).



RN 220874-86-2 CAPLUS

CN Cyclopropanepropanoic acid, β-hydroxy-, (βR)- (9CI) (CA INDEX NAME)

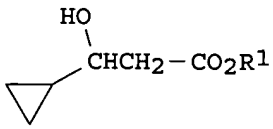
Absolute stereochemistry. Rotation (-).



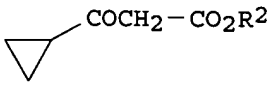
L13 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:104631 CAPLUS
DOCUMENT NUMBER: 130:209444
TITLE: Preparation of optically active 3-cyclopropyl-3-hydroxypropionic acids
INVENTOR(S): Tai, Akira; Sugimura, Takashi; Nakagawa, Satoshi
PATENT ASSIGNEE(S): Toyo Kasei Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11035520	A2	19990209	JP 1998-61514	19980312
PRIORITY APPLN. INFO.:			JP 1997-128605 A	19970519

OTHER SOURCE(S): CASREACT 130:209444; MARPAT 130:209444
GI



I



II

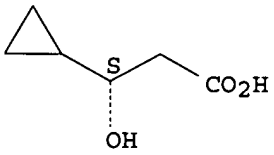
AB The title compds. [(R)- or (S)-I; R1 = H, aliphatic, alicyclic, aromatic, aryl-aliphatic, aryl-alicyclic, heterocyclic, or heterocyclyl-aliphatic group] are prepared by asym. reduction of 3-cyclopropyl-3-oxopropionic acid (II; R2 = same as above) in the presence of (S,S)- or (R,R)-tartaric acid-modified Raney nickel. This process uses inexpensive asym. sources and inexpensively gives the above compds. in high yields and high optical purity. They are useful as intermediates for agrochems. or drugs such as antitumor agents or antibiotics [e.g.(-)-methylenolactocin] and are also converted into (R)- or (S)-3-hydroxy-4-methylpentanoic acid which in turn are intermediates for ligands of asym. reduction catalysts. Thus, 10 g Me

3-cyclopropyl-3-oxopropionate (preparation given), 10 mL THF, and 0.2 mL AcOH are placed in an autoclave, followed by adding 0.8 g (R,R)-tartaric acid-modified Raney nickel, and the autoclave was pressurized with hydrogen to 100 atm and shaken at 0° for 48 h to give, after distillation, 91% (S)-I (R = Me) (III) of 98% ee. Similarly (R)-I (R = Me) (IV)
of 98% ee was obtained in 92% yield by hydrogenation using (S,S)-tartaric acid-modified Raney nickel. Catalytic hydrogenation of III and IV over PtO2 gave Me (S)-3-hydroxy-4-methylpentanoate and Me (R)-3-hydroxy-4-methylpentanoate, resp.

IT **220874-85-1P**, (S)-3-Cyclopropyl-3-hydroxypropionic acid
220874-86-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of optically active cyclopropylhydroxypropionic acids by asym. reduction of cyclopropyloxopropionate in presence of tartaric acid-modified Raney nickel)

RN 220874-85-1 CAPLUS
CN Cyclopropanepropanoic acid, β-hydroxy-, (βS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 220874-86-2 CAPLUS
CN Cyclopropanepropanoic acid, β-hydroxy-, (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).